

WHAT IS CLAIMED IS:

- 1                   1.     An automated storage system comprising:  
2                   a media storage facility including a plurality of individual medium  
3 slots, each individual medium slot being for storing an individual medium, the  
4 media storage facility further including a plurality of superset slots, each superset  
5 slot being for storing a superset of media;  
6                   at least one mechanism for accessing individual media; and  
7                   at least one mechanism for accessing supersets of media,  
8                   wherein the media storage facility is configured such that any  
9 individual media located in a superset remain accessible on an individual basis in  
10 addition to being accessible as part of the superset where it is located.
- 1                   2.     The automated storage system of claim 1 wherein the media  
2 storage facility is configured such that supersets can be reorganized, emptied, or  
3 created based on a list of individual media present in the media storage facility.
- 1                   3.     The automated storage system of claim 1 wherein the media  
2 storage facility is configured such that supersets can be reorganized, emptied, or  
3 created based on a set of instructions or policies imposed by a controlling system.
- 1                   4.     The automated storage system of claim 3 wherein the media  
2 storage facility is configured such that the organization of the supersets can be a  
3 RAID grouping.
- 1                   5.     The automated storage system of claim 1 wherein the media  
2 storage facility is configured such that intermediate supersets can be logically  
3 organized within the physical organization of a parent superset.
- 1                   6.     The automated storage system of claim 5 wherein the media  
2 storage facility is configured such that an intermediate superset can be an individual  
3 media location within the organization of a parent superset.

1                   7.     The automated storage system of claim 1 wherein the media  
2 storage facility is configured such that intermediate supersets can be physically  
3 organized while maintaining a logical organization relationship to a parent superset.

1                   8.     The automated storage system of claim 1 wherein the media  
2 storage facility is configured to receive supersets and individual media such that  
3 system accessible supersets may be created with received individual media and such  
4 that received supersets may be split into multiple system accessible individual media  
5 or intermediate supersets of media.

1                   9.     The automated storage system of claim 8 wherein the media  
2 storage facility is configured to manage more types of supersets than the system is  
3 organized to receive.

1                   10.    The automated storage system of claim 8 wherein the media  
2 storage facility is configured such that system accessible individual media may be  
3 grouped to form supersets for ejection and such that system accessible supersets may  
4 be ejected as a unit or split into multiple individual media for ejection.

1                   11.    The automated storage system of claim 1 wherein any  
2 individual media located in a superset remain accessible as part of an intermediate  
3 superset within the superset.

1                   12.    The automated storage system of claim 1 wherein the  
2 accessing mechanisms are the same physical mechanism.

1                   13.    The automated storage system of claim 1 wherein there are a  
2 plurality of different types of supersets of media.

1                   14.    An automated storage system comprising:  
2 an automated storage library including a plurality of individual  
3 medium slots, each individual medium slot being for storing an individual medium,

4 the automated storage library further including a plurality of superset slots, each  
5 superset slot being for storing a superset of media;  
6 at least one mechanism for accessing individual media; and  
7 at least one mechanism for accessing supersets of media,  
8 wherein the automated storage library is configured such that any  
9 individual media located in a superset remain accessible on an individual basis in  
10 addition to being accessible as part of the superset where it is located.

1 15. The automated storage system of claim 14 wherein the  
2 automated storage library is configured such that supersets can be reorganized,  
3 emptied, or created based on a list of individual media present in the automated  
4 storage library.

1 16. The automated storage system of claim 14 wherein the  
2 automated storage library is configured such that supersets can be reorganized,  
3 emptied, or created based on a set of instructions or policies imposed by a  
4 controlling system.

1 17. An automated storage system comprising:  
2 a shelf system including a plurality of individual medium slots, each  
3 individual medium slot being for storing an individual medium, the shelf system  
4 further including a plurality of superset slots, each superset slot being for storing a  
5 superset of media;  
6 at least one mechanism for accessing individual media; and  
7 at least one mechanism for accessing supersets of media,  
8 wherein the shelf system is configured such that any individual media  
9 located in a superset remain accessible on an individual basis in addition to being  
10 accessible as part of the superset where it is located.

1 18. The automated storage system of claim 17 wherein the shelf  
2 system is configured such that supersets can be reorganized, emptied, or created  
3 based on a list of individual media present in the shelf system.

1                   19.    The automated storage system of claim 17 wherein the shelf  
2    system is configured such that supersets can be reorganized, emptied, or created  
3    based on a set of instructions or policies imposed by a controlling system.

1                   20.    The automated storage system of claim 17 wherein the  
2    accessing mechanisms are the same physical mechanism.